

Claim Amendments

Deletions Double Bracketed (5 words or less) and/or Strikeout - Additions Underlined

Please amend the claims as indicated below.

Claim 1. (Currently Amended) A watercraft, comprising:

at least one hull having at least one planing surface;

at least one vertical step in the planing surface;

an onboard propulsion engine; and

means for venting exhaust from the onboard propulsion engine at the vertical step in the planing surface while under way in order to introduce gas along the planing surface [[.]]

wherein the hull is an M-shaped boat hull according to the definition of M-shaped boat hull in the specification.

Claim 2. (Original) A watercraft as recited in claim 1, wherein:

the vertical step in the planing surface includes an upper portion and a lower portion;

the hull defines an exhaust-venting opening intermediate the upper and lower portions of the vertical step; and

the means for venting exhaust from the onboard propulsion engine at the vertical step includes an exhaust-venting system extending to the exhaust-venting opening.

Claim 3. (Original) A watercraft as recited in claim 1, wherein the watercraft includes multiple hulls with multiple planing surfaces and multiple vertical steps, and the means for venting exhaust is arranged to vent exhaust at each of the multiple vertical steps.

Claim 4. (Original) A watercraft as recited in claim 1, wherein the planing surface includes multiple vertical steps and the planing surface retracts after each of the multiple vertical steps toward an original planing surface level.

Claim 5. (Original) A watercraft as recited in claim 1, wherein the planing surface includes multiple vertical steps and the planing surface is elevated after each of the multiple vertical steps from an original planing surface level.

Claim 6. (Original) A watercraft as recited in claim 1, wherein the vertical step in the planing surface includes an upper portion and a lower portion, and the hull defines an exhaust-venting opening intermediate the upper and lower portions of the vertical step that faces rearwardly from the vertical step.

Claim 7. (Original) A watercraft as recited in claim 1, wherein the vertical step in the planing surface includes an upper portion and a lower portion, and the hull defines an exhaust-venting opening in the upper portion of the vertical step that faces downwardly from the upper portion.

Claim 8. (Currently Canceled)

Claim 9. (Original) A watercraft, comprising:

a hull having a fore end, an aft end, and a longitudinal axis extending between the fore end and the aft end;

a displacement body portion of the hull that extends between the fore end and the aft end, the displacement body having a static waterline, a port side, and a starboard side;

a first channel-defining structure portion of the hull that is located on the port side of the displacement body, including a first wing structure extending laterally from the port side of the displacement body above the static waterline and a first outer skirt structure that extends downwardly from the first wing structure to below the static waterline in spaced apart relationship to the displacement body, said first outer skirt structure having an outer surface that is substantially perpendicular with respect to the static waterline and said first channel-defining structure defining a first channel with a cross-sectional surface that is generally arcuate; and

a second channel-defining structure portion of the hull that is located on the starboard side of the displacement body, including a second wing structure extending laterally from the starboard side of the displacement body above the static waterline and a second outer skirt structure extending perpendicularly downwardly from the second wing structure to below the static waterline in spaced apart relationship to the displacement body, said second outer skirt structure having an outer surface that is substantially perpendicular with respect to the static waterline and said second channel-defining structure defining a second channel with a cross-sectional surface that is generally arcuate;

the first and second channels extending from the fore end to the aft end and the first and second channels being adapted to capture a bow wave and to cause air and water to mix and spiral toward the aft end of the hull as compressed aerated water, thereby reducing friction drag, increasing lateral stability, and dampening transmission of bow wave energy at the aft end of the hull; and

the hull including at least one planing surface, at least one vertical step in the planing surface, an onboard propulsion engine, and means for venting exhaust from the onboard propulsion engine at the vertical step in the planing surface while under way in order to introduce gas along the planing surface.

Claim 10. (Newly Presented) A watercraft as recited in claim 9, wherein:

the vertical step in the planing surface includes an upper portion and a lower portion;

the hull defines an exhaust-venting opening intermediate the upper and lower portions of the vertical step; and

the means for venting exhaust from the onboard propulsion engine at the vertical step includes an exhaust-venting system extending to the exhaust-venting opening.

Claim 11. (Newly Presented) A watercraft as recited in claim 9, wherein the watercraft includes multiple hulls with multiple planing surfaces and multiple vertical steps, and the means for venting exhaust is arranged to vent exhaust at each of the multiple vertical steps.

Claim 12. (Newly Presented) A watercraft as recited in claim 9, wherein the planing surface includes multiple vertical steps and the planing surface retracts after each of the multiple vertical steps toward an original planing surface level.

Claim 13. (Newly Presented) A watercraft as recited in claim 9, wherein the planing surface includes multiple vertical steps and the planing surface is elevated after each of the multiple vertical steps from an original planing surface level.

Claim 14. (Newly Presented) A watercraft as recited in claim 9, wherein the vertical step in the planing surface includes an upper portion and a lower portion, and the hull defines an exhaust-venting opening intermediate the upper and lower portions of the vertical step that faces rearwardly from the vertical step.

Claim 15 (Newly Presented) A watercraft as recited in claim 9, wherein the vertical step in the planing surface includes an upper portion and a lower portion, and the hull defines an exhaust-venting opening in the upper portion of the vertical step that faces downwardly from the upper portion.